# NASA Langley Research Center



**Kristen Poultney and Mike Stubbs** 

#### Presentation Overview

NASA

- Objectives
  - Share approach of using recycling contracts for best value
  - Share approach of C&D diversion success
  - Share concept of LaRC Mart initiative
- Recycling Program Background
- Items Collected and Procedures for Recycling
- The Sale of Recyclables
- Contract Language- C&D Diversion and RAPP
- Future Recycling Initiatives
- The LaRC Mart

#### Background

- The Environmental Management Team (EMT) oversees program; coordinates sale of recyclables with Office of Logistics Management (OLM)
- CoF projects go through OLM to ensure high capture rate of scrap metal
- Support contractors collect recyclable items and act as LaRC's Authorized Agent for the sale of recyclables
- Stopped the sale of recyclables through GSA in early 1999

### Items Recycled at LaRC

#### **Generates Revenue**

- White Paper
- Mixed Paper
- Cardboard
- Toner Cartridges
- Scrap Metal
- Used Oil

#### **Does Not Generate Revenue**

- Fluorescent Light Tubes
- Batteries
- Antifreeze
- C&D debris











#### Scrap Metal

- Scrap metals collected are aluminum, copper and copper wire, and mixed metals
- Facility personnel segregate by metal type
- Collected by OLM support contractor; one individual @ 20 man-hrs/wk
- Metal weighed before shipment by LaRC
- Vendor is invoiced according to amount of property removed (tons) and percentage bid of current market value



#### Cardboard Recycling

- Old Corrugated Cardboard (OCC) collected of any color or thickness; paperboard or food contaminated pieces are not collected
- Recycling bins located at facilities of large generators; small generators place OCC next to paper bins in facility
- Collected by EMT support contractor (SAIC)
- Made into bales at LaRC Recycling Building and loaded onto vendor provided trailer
- Vendor is invoiced according to amount of property removed (tons) and percentage bid of current market value



**Small Generators** 



Large Generators

## Toner Cartridge Recycling

- Toners of all types are collected
- Toners are placed in original packaging next to paper bins at the facility
- Collected by EMT support contractor and stored in LaRC Recycling Building
- Currently sold through GSA but expected to be awarded to local vendor in early April 2007
- Expected revenue is ~\$3.15 per cartridge



## White and Mixed Paper Recycling

- White and mixed paper (catalogues and magazines with staple binders, colored and/or glossy paper, post-it notes, manilla folders)
- Recycling bins located at facilities and employees segregate by type
- Collected by EMT support contractor; two people @ 20 man-hrs/wk
- Made into bales at LaRC Recycling building and loaded onto trailer kept at LaRC
- The vendor is invoiced according to the amount of property removed (tons) and percentage bid of current market value



Desk Bin







# Materials Recycled at LaRC

| Type of<br>Material | FY01<br>(lbs.) | FY02<br>(lbs.) | FY03<br>(lbs.) | FY04<br>(lbs.) | FY05<br>(lbs.) | FY06<br>(lbs.) |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Aluminum            | 3,410          | 9,527          | 17,708         | 2,078          | 3,585          | 30,131         |
| Antifreeze          | 858            | 858            | 1,092          | 858            | 858            | 0              |
| Batteries           | 4,438          | 5,231          | 3,141          | 5,959          | 4,399          | 4,958          |
| Cardboard           | 55,980         | 56,960         | 60,440         | 50,580         | 47,820         | 32,860         |
| Copper              | 4,490          | 21,397         | 31,795         | 39,120         | 7,296          | 13,460         |
| Mixed Metals        | 368,519        | 680,210        | 728,685        | 629,372        | 934,667        | 669,320        |
| FLB's               | 10,254         | 9,693          | 7,695          | 4,346          | 5,386          | 5,695          |
| Mixed Paper         | 56,980         | 65,480         | 69,300         | 89,180         | 80,640         | 21,080         |
| Toner               | 1,441          | 1,640          | 1,131          | 1,302          | 1,260          | 1,125          |
| Used Oil            | 31,080         | 25,160         | 42,550         | 65,860         | 66,526         | 30,340         |
| White Paper         | 187,360        | 191,780        | 169,560        | 178,600        | 179,480        | 102,320        |
| Total               | 724,810        | 1,067,936      | 1,133,097      | 1,067,255      | 1,331,917      | 911,289        |

### The Sale of Recyclables



Two ways to sell recyclables: GSA or LaRC contracts

- GSA Sales
  - Lower Market Values (decreased revenue)
  - Slow / unpredictable payment from GSA
  - Additional administrative costs
- LaRC Contract (FY06 = \$38,184)
  - Prices based on current market values
  - More control of invoicing and payments
  - Payments received directly from vendor with no administrative fees

## The Sale of Recyclables



- SAIC acts as NASA's Authorized Agent to:
  - Assist the Government with preparation and distribution of the Invitation For Bids.
  - Prepare and mail invoices to the vendor; verify that Financial Management receives payments in a timely manner.
  - Reconcile data and provide metrics to the Sales Contracting Officer.
  - Notify the Sales Contracting Officer of any problems.
- Why EMT instead of OLM?
  - EMT receives revenue and has greater motivation for running a profitable program

Copies of LaRC Scrap Metal IFB are available



### Contract Language

#### **Demolition and Modification Projects**

- Unified Facilities Guide Specifications
- Reporting Requirements

#### Promoting RAPP in Contracts

- FAR Subpart 23.4 Use of Recovered Materials (RM)
  - FAR Provision 52.223-4 RM Certification
  - FAR Clause 52.223-9 Estimate of % of RM in EPA Items
- FAR Subpart 23.7 EPP and Services
  - FAR Clause 52.223-10 Waste Reduction Program
- Reporting Requirements annual submission for long-term contracts

## Solid Waste Diversion

|             | Solid Waste<br>Disposed<br>(lbs) | Solid Waste<br>Diverted (lbs) | Percent<br>Diverted | Recycling<br>Revenue |
|-------------|----------------------------------|-------------------------------|---------------------|----------------------|
| FY01        | 7,875,610                        | 724,810                       | 8%                  | \$21,722             |
| FY02        | 2,361,420                        | 1,999,936                     | 46%                 | \$31,105             |
| FY03        | 2,153,000                        | 2,183,097                     | 50%                 | \$41,622             |
| FY04        | 293,860                          | 3,808,089                     | 93%                 | \$40,788             |
| FY05        | 900,840                          | 12,039,240                    | 93%                 | \$38,740             |
| <b>FY06</b> | 789,114                          | 5,833,145                     | 88%                 | \$38,184             |

• C&D materials included in FY05 – FY06

## Future Recycling Initiatives

- Scrap Metal / Toner Recycling Contracts 4/2007
- Online Training available for all Center personnel 4/2007
- Paper/OCC Recycling Contracts 2/2008
- Aluminum Cans Evaluate collection program

#### Center Operations Contracting Branch Office of Procurement



"Bridging The Gap Between Government and Private Industry"

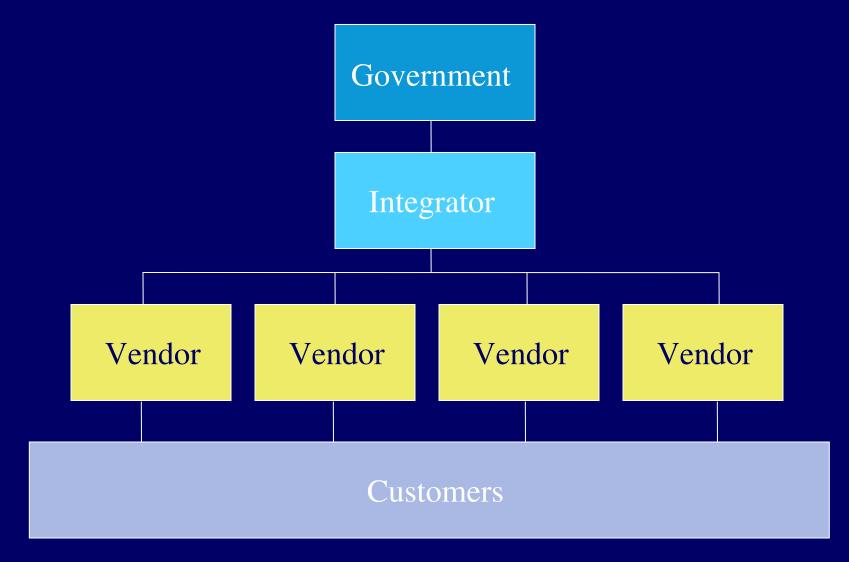
## Goal of the Larc Mart

Operate a self-service store providing our customer base a desired and beneficial service that would save time, materials and resources. Provide a single-point data source for environmentally preferable purchases, including CPG and biobased items.

## Background

- Budget constraints have caused us to review our current business practices and to improve supply management techniques
- We had to take a proactive role in enhancing services with a positive impact to our customer base
- The Self Service Store concept was introduced to the Logistics team and their challenge was to look at the feasibility of establishing a Self-Service Store at LaRC
- The concept is simple, we had to consider material being sold on consignment or the grocery store "milk and bread delivery" concept. Bottom line, we don't want to own assets until they are paid for
- LaRC needs to maximize its NETS input data and regulatory compliance

#### SELF-SERVICE STORE ARCHITECTURE



### Projected Benefits

- \$1.5M cost avoidance for shelved material
- \$150k annual savings for current labor cost
- Cost of freight services to and from point of sale
- Reduced G & A, overhead plus fee from all existing contracts
- Centralized purchasing records for Center OUM's and Contractors
- Ability to screen or preempt unauthorized purchases
- No cost for EDI interface (integrator borne)
- Government no longer owns the assets until purchased
- Utilize the Private Sector Resources bodies, money plus Information Technology

# Process Improvement

- Utilize the Bank Card to facilitate purchases
- Eliminate the Carrier account process where applicable
- Eliminate Store Stock Inventory altogether
- Eliminate JIT from current contract
- Implement Supply Chain Management practices
- Utilize the store as a Mandatory Source of Supply

#### Other Advantages

- Centralized point of entry and sale of products
- Increase on hand commodities without increased cost
- Utilize the Integrator to procure material on a demand basis
- Become the provider of choice for LaRC users
- Continue to provide Desk Top Delivery
- Integrator markets products to users
- More variety, better selection of products
- Consolidated reporting for RAPP
- CPG and biobased items highlighted in catalog
- Constant and continuous competition between vendors
- Larger base cheaper cost